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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,824	09/13/2000	Alan Rowe	103.1046.01	7793

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EXAMINER

HOANG, PHUONG N

ART UNIT PAPER NUMBER

2126

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/660,824

Applicant(s)

ROWE, ALAN

Examiner

Phuong N. Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/1/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1 – 47 are pending for examination.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 43 – 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- a. As to claim 43, applicant claimed "said flag value indicating the character of previous operating mode. Examiner could not find anywhere in the specification disclosing the limitation. On page 10 lines 15 –17, the flag value only indicates a reboot of the server.

- b. As to claim 44 – 47, they are dependent claims of claim 43. They are rejected for the same reason above.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 43 – 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

c. As to claim 43, at line 4 – 6, it is not clearly indicated what the term “indicating a type of server reboot to be affected” means (i.e., is it means the server to be reboot or to be affected).

d. As to claims 44 – 47, they are dependent claims of claim 43. They are rejected for the same reason above.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**7. Claims 1 – 4, 8, 12, 16, 21 – 25, 29, 33, 37, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312.**

**8. French was cited in the last office action.**

**9. As to claim 1**, French teaches a method of operating a file server, comprising the steps of:

receiving a CIFS request at the file server (CIFS client access network devices located on servers, col. 3 lines 25 – 50);

recording a state at the file server about the request (the per server session structure 58 maintains state information with respect to the server to which the user is connecting, col. 5 lines 1 - col. 6 line 10) the state including information regarding a persistent connection between the server and a client device;

restoring the state of the file server upon reboot as last recorded (reconnect without requiring the user to re-enter information, col. 5 and col. 6 lines 1 – 26);

attempting to continue the CIFS session between at least one client device and the file server that the request was part of (reestablish the connections, replays the connections, col. 6 lines 20 – 48).

French does not explicitly teach that the state about the request is recording at the time of receiving. However, French teaches the state information respect to the server to which the user is connecting (col. 5 lines 1 – col. col. 6 lines 10).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that the information about the user is connecting has to be recorded dynamically to have the session establishment request and information of the user connection.

10. **As to claim 2**, French teaches the steps of acknowledging receipt of the CIFS request; processing the CIFS request (session establishment request is stored ...."permanent", col. 6 lines 5 – 10).

11. **As to claim 3**, French teaches the step of recording state includes determining automatically whether the processing of a CIFS request is at a point where the state can be reliably recorded (it is inherent in maintaining the state information).

12. **As to claim 4**, French teaches the step of recording state occurs at points based on the progress of processing of a CIFS request (CIFS, col. 3 lines 25 – 50).

13. **As to claim 8**, French teaches the step of recording state further comprises the step of determining whether the server shutdown was elective or non-elective (an interrupt .... test outcome is negative or positive, col. 6 lines 10 – 20).

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14. **As to claim 12**, French teaches the step of wherein the step of recording state further comprises the step of determining whether recovery will be accomplished by rebooting the affected server (the machine is rebooted, col. 6 lines 40 – 45).

15. **As to claim 16**, see rejection for claim 12 above.

16. **As to claim 21**, French teaches the method of claim 1, wherein the step of attempting to continue the CIFS session that the request was part of further comprises the step of processing the remaining portion of the uncompleted request (replays the connections, col. 6 lines 20 – 48).

17. **As to claim 22**, this is the apparatus claim of claim 1. See rejection for claim 1 above.

18. **As to claims 23 – 25**, see rejection for claims 2 – 4 above.

19. **As to claim 29**, see rejection for claim 8 above.

20. **As to claim 33**, see rejection for claim 12 above.

21. **As to claim 37**, see rejection for claims 16 above.

22. **As to claim 42**, see rejection for claim 21 above.

23. **Claims 5, 9 – 11, 13 – 14, 17 - 19, 26, 34 – 35, 38 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312 in view of Delaney, US patent no. 5,996,086.**

24. Delaney reference was cited in the last office action.

25. **As to claim 5**, French does not explicitly teach the step of wherein the state is recorded to a non-volatile storage.

Delaney teaches the step of the information is stored in the non-volatile storage (the non- volatile storage of each server is used to store identification information, specific to the fail-over servers, col. 4 lines 42 – 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of French and Delaney's system because the non-volatile memory storage is necessary for the server to maintain the system information when the power is off.

26. **As to claim 9**, French modified by Delaney teaches the step of determining whether the server shutdown is elective or non-elective is a function of a flag (test outcome, col. 6 lines 10 – 20) value stored in the non-volatile storage.



27. **As to claims 10 and 11**, French teaches the step of the flag value indicates the server shutdown was elective (positive or negative, col. 6 lines 10 – 20) or non-elective.

28. **As to claim 13**, French modified by Delaney teaches the step of recording state further comprises the step of determining whether recovery will be accomplished by rebooting the affected server (the machine is rebooted, col. 6 lines 40 – 45) is a function of the flag value (the test outcome, col. 6 lines 10 – 20) is stored in the non-volatile storage.

29. **As to claim 14**, French teaches the step of the flag value indicates the recovery will be accomplished by rebooting the affected server (if the outcome is positive, the routine reconnect the client to the server, col. 6 lines 15 - 45).

30. **As to claim 17**, see rejection for claim 13 above.

31. **As to claim 18**, French teaches wherein the reboot comprises the steps of:

rebooting the affected server's operating system (the machine is rebooted, col. 6 lines 40 – 45); and

rebuilding in-memory data structures (inherent when the data structures is saved in a disk such that when the machine is rebooted, col. 6 lines 40 – 48) to the state prior to the reboot.

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32. **As to claim 19**, French modified by Delaney teaches the step of wherein the rebuilding in-memory data structures further comprises fetching the state stored in the non-volatile storage (Delaney; non-volatile storage, col. 4 lines 42 – 65) to rebuild the in-memory data structures (French; inherent when the data structures is saved in a disk such that when ..... rebooted, col. 6 lines 40 – 48).

33. **As to claim 26**, see rejection for claim 5 above.

34. **As to claims 34**, see rejection for claim 13 above.

35. **As to claims 35**, see rejection for claim 14 above.

36. **As to claims 38**, see rejection for claim 17 above.

37. **As to claims 39 - 40**, see rejection for claims 18 - 19 above.

38. **Claims 6, 7, 27 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312 in view of Sakakura, US patent no. 6,334,139.**

39. **Sakakura was cited in the last office action.**

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40. **As to claims 6 and 7**, French teaches the steps of recording state occurs as part of an elective reboot (test is negative, col. 6 lines 10 – 25) or elective takeover of a server further comprising:

ignoring current CIFS requests (one of ordinary skill in the art can recognize that the current request should be temporarily ignored after the interrupt occurs and before trying to process all active requests);

French does explicitly teach processing all active CIFS requests.

Sakakura teaches processing all requests (re-boots the server B, the processing system is also restarted, col. 9 lines 22 – 26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of French to Sakakura's system because Sakakura's ability processing all requests would provide the system the ability to complete to process the requests after rebooting to speed up the processing system.

41. **As to claims 27 – 28**, see rejection for claims 6 – 7 above.

42. **Claims 30 - 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312 in view of Sakakura, US patent no. 6,334,139, and further in view Delaney, US patent no. 5,996,086.**

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43. **As to claim 30**, French teaches the step of determining whether the server shutdown is elective or non-elective is a function of a flag (test outcome, col. 6 lines 10 – 20) value.

French and Sakakura do not explicitly teach the information is stored in the non-volatile storage.

Delaney teaches the step of the information is stored in the non-volatile storage (the non-volatile storage of each server is used to store identification information, specific to the fail-over servers, col. 4 lines 42 – 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of French and Delaney's system because the non-volatile memory storage is necessary for the server to maintain the system information when the power is off.

44. **As to claims 31 and 32**, French teaches the step of the flag value indicates the server shutdown was elective (positive or negative, col. 6 lines 10 – 20) or non-elective.

45. **Claims 15, 20, 36, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over French, US patent no. 6,341,312 in view Delaney, US patent no. 5,996,086, and further in view of Chrabaszcz, US patent no. 6,134,673.**

46. Chrabaszcz reference was cited in the last office action.

47. **As to claim 15**, French does not teach the step of wherein the flag value indicates the recovery will be accomplished by takeover by another server.

Chrabaszc teaches the step of wherein the flag value indicates the recovery will be accomplished by takeover by another server (instance in which the primary server 102 has failed as indicated by the termination mark 310.....detected the failure of the first server 102 .... Server 104 as the backup server, col. 8 lines 60 – col. 9 lines 15) is a function of the flag value stored in the non-volatile storage.

It would have been obvious to apply the teaching of Chrabaszc to French's system because Chrabaszc would provide a back up server to keep the system up running and providing services when a system failure occurs.

48. **As to claims 20**, French modified by Chrabaszc teaches wherein the takeover (Chrabaszc, server 104 as the backup server, col. 8 lines 60 – col. 9 lines 15) comprises fetching the stored in the non-volatile storage and rebuilding the in-memory data structures in another server using the state (French; one of the ordinary skill in the art can recognize that the data structures has to be rebuild in the in-memory in another server that has to be server trusted).

49. **As to claim 36**, see rejection for claim 15 above.

50. **As to claim 41**, see rejection for claim 20 above.

**51. Claims 43 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delaney, US patent no. 5,996,086 in view of French, US patent no. 6,341,312.**

**52. As to claim 43,** Delaney teaches the non-volatile memory having storage capable of holding information, the information including the steps of:

Information identifying the state of a first device (status of the servers, col. 6 lines 19 – 25); and

information identifying a flag value, the flag value indicating the character of a previous operating mode the character identifying a type of server reboot to be affected (identification information includes a flag .... To be booted, col. 7 lines 5 – col. 8 lines 10).

Delaney does not teach the step of attempting to continue any active CIFS sessions.

French teaches the step of attempting to continue any active CIFS sessions (reestablish the connections, replays the connections, col. 6 lines 20 – 48 and col. and col. 3 lines 25 - 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Delaney to French's system because French's CIFS session would provide an additional choice of protocols to the network for more flexibility and variety of means for accessing to the network system.

53. **As to claim 44**, Delaney teaches the step of wherein the flag value is capable of being interpreted to indicate rebooting the first device was an elective function (fo\_mode\_stop are initiated by reboot message, col. 8 – col. 9).

54. **As to claim 45**, Delaney teaches the step of wherein the flag value is capable of being interpreted to indicate rebooting the first device was a non-elective function (fo\_mode\_failed is initiated by reboot message, col. 8 – col. 9).

55. **As to claim 46**, Delaney teaches the step of wherein the flag value is capable of being interpreted to indicate takeover of the first device by a second device was an elective function (col. 8 lines 1 – 10).

56. **As to claim 47**, Delaney teaches the step of wherein the flag value is capable of being interpreted to indicate takeover of the first device by a second device was an elective function (col. 8 lines 1 – 10).

### ***Conclusion***

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (703)

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605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph  
January 20, 2005

  
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